

App. No. 10/061,170  
Amendment dated August 31, 2005  
Reply to Office Action of June 17, 2005

**Listing of claims:**

1. (currently amended) A method for associating a call ID with a contact on a mobile device, comprising:

- retrieving the call ID related to a calling party of a phone call;
- determining a candidate set of contacts from a contact information database based on the call ID, wherein:
  - the candidate set of contacts comprises contacts that correspond to the call ID according to a criteria, and
  - the criteria identifies a determines the minimum number of characters in the call ID that are used to identify a corresponding match to at least one data field of the contact in the candidate set of contacts;
  - identifying at least one performing a call ID match on the candidate set of contacts to obtain call related contact information associated with a matched contact that corresponds to matched the call ID by comparing the minimum number of characters in the call ID to at least one data field of each contact in the candidate set of contacts; wherein:
    - identifying call-related contact information associated with each identified contact;
    - calculating an ambiguity weight factor for each identified contact based on information associated with each identified candidate contact is used to determine, wherein:
      - the ambiguity a weight factor that identifies a the probability that the identified candidate contact corresponds to the call ID, and
      - the information comprises at least one of: the minimum number of characters in the call ID used to identify the corresponding contact a character length of the match, a location of the match, a format of the match, and a specific the type of at least one data field of the identified contact that is compared to the minimum number of characters of the call ID was matched; and
      - passing the call-related contact information and the ambiguity weight factor for each identified contact to a user display on a mobile device.

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2. (currently amended) The method of Claim 1, wherein the phone call includes an inbound phone call from ~~to~~ the calling party.
3. (currently amended) The method of Claim 1, wherein the phone call includes an outbound phone call to ~~from~~ the calling party.
4. (original) The method of Claim 1, further comprising pre-processing the call ID to remove extraneous characters from the call ID.
5. (currently amended) The method of Claim 1, wherein determining the candidate set of contacts further comprises ~~includes~~ performing a Boyer Moore fast approximation on the at least one data field of ~~associated with~~ each contact in the contact information database, the contact being added to becoming one of the candidate set of ~~contacts if any of the corresponding at least one data field corresponds fields correspond~~ to the call ID according to the criteria.
6. (currently amended) The method of Claim 1, wherein identifying at least one contact that corresponds to the call ID further comprises performing the call ID match ~~includes~~ performing a tail end match of the call ID with the at least one data field of ~~associated with~~ each contact ~~that is identified~~ in the candidate set of contacts.
7. (currently amended) The method of Claim 6, further comprising removing extraneous characters from ~~wherein~~ the call ID and information contained within the at least one data field of the contact ~~have extraneous characters removed~~ before performing the tail end match.
8. (currently amended) The method of Claim 1, further comprising displaying a visual indicator on the user display that corresponds to the ambiguity weight factor.
9. (cancelled)

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10. (currently amended) The method of Claim 1, further comprising displaying  
~~wherein the user display displays a rich set of call-related contact information on the user~~  
display.

11. (currently amended) The method of Claim 1 ~~10~~, wherein the ~~rich set of~~  
call-related contact information includes at least one of: a company name associated with the  
identified ~~matched~~ contact, a thumbnail picture of an individual associated with the identified  
~~matched~~ contact, and a type ~~of~~ ~~for the~~ phone number associated with the phone call.

12. (currently amended) The method of Claim 1 ~~10~~, further comprising displaying a  
hot link on ~~wherein the user display, wherein the further comprises a hot link provides a link to~~  
~~any item in the call-related contact information that is displayed.~~

13. (currently amended) A computer-readable medium encoded with  
computer-executable components, comprising:  
a first component that is configured to receive a call ID associated with a caller;  
and  
a second component that is configured to:  
receive the call ID from the first component,  
identify a candidate set of candidate contacts from a contact information  
database based on the call ID, wherein:  
the candidate set of contacts comprises contacts that correspond to  
the call ID according to a criteria, and  
the criteria identifies a ~~determines the~~ minimum number of  
characters in the call ID that are used to identify a corresponding match to  
~~at least one data field of the contact in the candidate set of contacts,~~  
identify at least ~~determine if one contact in~~ of the candidate set of contacts  
that corresponds to matches the call ID by comparing the minimum number of characters  
in the call ID to at least one data field of each contact in the candidate set of contacts;  
wherein:

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identify call-related contact information associated with each identified contact:  
calculate an ambiguity weight factor for each identified contact based on information associated with each identified candidate contact is used to determine, wherein:  
the ambiguity a weight factor that identifies a the probability that the identified candidate contact corresponds to the call ID, and  
the information comprises at least one of: the minimum number of characters in the call ID used to identify the corresponding contact a character length of the match, a location of the match, a format of the match, and a specific the type of at least one data field of the identified contact that is compared to the minimum number of characters of the call ID was matched, and  
pass the call-related contact information and the ambiguity weight factor for each identified contact to the first component if one contact is identified that corresponds to matched the call ID;  
wherein the first component is further configured to display the call-related contact information and the ambiguity weight factor on a user display on a mobile device.

14. (currently amended) The computer-readable medium of Claim 13, wherein the call-related contact information includes at least one of: a company name associated with the identified contact, a company address associated with the identified contact, a type of phone number associated with the caller, and a thumbnail picture associated with the identified contact, each being associated with the call ID.

15. (currently amended) The computer-readable medium of Claim 13, wherein the second component performs a Boyer Moore fast approximation on the at least one data field of each contact in the contact information database, further wherein the second component and adds the contact to the candidate set of candidate contacts if any of the corresponding at least one data field corresponds fields correspond to the call ID according to the criteria.

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16. (currently amended) The computer-readable medium of Claim ~~13~~ 15, wherein the second component identifies at least ~~determines whether one~~ contact in ~~of the candidate set~~ of contacts matches the call ID by performing a tail end match.

17. (original) The computer-readable medium of Claim 16, wherein the tail end match results in an exact match.

18. (original) The computer-readable medium of Claim 16, wherein the tail end match results in a partial match.

19. (cancelled)

20. (currently amended) A mobile device, comprising:  
 a processor;  
 a display;  
 a memory into which a plurality of instructions are loaded, the plurality of instructions performing a method comprising:  
 receiving a call ID associated with a caller;  
 identifying a candidate set of ~~candidate~~ contacts from a contact information database based on the call ID[:]], wherein:  
     determining if one of the candidate set of contacts correspond  
     corresponds to the call ID according to a criteria, and wherein  
     the criteria identifies a determines the minimum number of  
     characters in the call ID that are used to identify a corresponding match to  
     at least one data field of the contact in the candidate set of contacts;  
     identifying at least one contact in the candidate set of contacts that  
     corresponds to the call ID by comparing the minimum number of characters in the call ID  
     to at least one data field of each contact in the candidate set of contacts;  
     identifying call-related contact information associated with each identified  
     contact; if one of the candidate contacts corresponds to the call ID according to the  
     criteria, wherein:

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calculating an ambiguity weight factor for each identified contact based on information associated with each identified candidate contact is used to determine, wherein:

the ambiguity a weight factor that identifies a the probability that the identified candidate contact corresponds to the call ID, and

the information comprises at least one of: the minimum number of characters in the call ID used to identify the corresponding contact a character length of the match, a location of the match, a format of the match, and a specific the type of at least one data field of the identified contact that is compared to the minimum number of characters of the call ID was matched; and

displaying the call-related contact information and the ambiguity weight factor on the display of the mobile device.

21. (cancelled)

22. (currently amended) The mobile device of Claim 20, wherein the call-related contact information includes at least one of: a company name associated with the identified contact, a company address associated with the identified contact, a type of phone number associated with the caller, and a thumbnail picture associated with the identified contact, each being associated with the call ID.

23. (currently amended) The mobile device of Claim 20, wherein identifying the candidate set of candidate contacts further comprises: includes

performing a Boyer Moore fast approximation on the at least one data field of each contact in the contact information database; and

adding the contact to the candidate set of candidate contacts if any of the corresponding at least one data field corresponds fields correspond to the call ID according to the criteria.

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24. (currently amended) The mobile device of Claim 23, wherein identifying at least one contact in determining whether one of the candidate set of contacts matches the call ID includes further comprises performing a tail end match.

Claims 25-27 (cancelled)